

## **ABSTRACT OF THE DISCLOSURE**

The invention relates generally to a method for improving growth of plants, under normal and under stress conditions, more particularly under osmotic stress and/or temperature extremes, comprising modifying plant haemoglobin gene expression and/or by modifying plant haemoglobin protein levels in a plant. The invention furthermore relates to a method for increasing yield of a plant, comprising modifying plant gene expression and/or by modifying plant haemoglobin levels in a plant. The invention also relates to a nucleic acid encoding a haemoglobin conferring this altered growth and stress tolerance.